START

0029126

MEETING MINUTES

Subject: Expedited Response Action Weekly Interface

TO: Distribution

BUILDING: 740 Stevens Center

FROM: W. L. Johnson

CHAIRMAN: G. C. Henckel 7/8/93

Dept-Operation-Component	Area	Shift	Meeting Dates	Number Attending
Environmental Engineering	RCHN	Day	June 21, 1993	7

Distribution

State of Washington Department of Ecology
J. Donnelly
L. Goldstein
D. Goswami
R. L. Hibbard
J. Phillips
D. D. Teel
N. Uziemblo
J. Yokel
T. Wooley

U.S. Army Corps of Engineers
Walter Perro* A3-61

U.S. Department of Energy, Richland Field Office
H. L. Chapman A5-19
J. K. Erickson A5-19
B. L. Foley A5-19
E. D. Goller A5-19
R. G. McLeod A5-19
D. E. Olson* A5-19
P. M. Pak A5-19
R. K. Stewart A5-19

Dames and Moore
B. Scheck*

U.S. Environmental Protection Agency
P. R. Beaver B5-01
D. R. Einan
D. A. Faulk
L. E. Gadbois
P. S. Innis
D. R. Sherwood

Westinghouse Hanford Company
L. D. Arnold B2-35
M. V. Berriochoa B3-30
H. D. Downey H6-27
W. F. Heine B3-63
G. C. Henckel* H6-04
W. L. Johnson H6-04
J. K. Patterson H6-27
V. J. Rohay* H6-06
D. L. Sickle* H6-27
K. J. Swett* H6-06
T. M. Wintczak H6-27
EDMC H6-08
ERAG Route H6-04
GCH File

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*Attendees

The weekly interface meetings on the expedited response actions (ERAs) was held to status the ERAs for the U.S. Department of Energy, Richland Operations Office, the U.S. Environmental Protection Agency, and the State of Washington Department of Ecology. The meeting was conducted in accordance with the attached agenda. The tentative schedule for the N-Springs ERA Proposal includes a Commitment Resolution Meeting (WHC and RL) on June 28, 1993. If there are no significant issues, the document may be available by the end of July or late August if substantial revisions are necessary.

Attachments:
1. Agenda
2. Action Item List
3. Decisions, Agreements & Commitments
4. Expedited Response Action Weekly Reports, week ending 06/18/93

Weekly Report, Period Ending June 18, 1993
EXPEDITED RESPONSE ACTIONS
Technical and Management Contact - Wayne L. Johnson, 376-1721
Environmental Division

North Slope Expedited Response Action - The draft of the ERA Proposal is being processed for concurrent RL, WHC review during the week of June 25, 1993.

N-Springs Expedited Response Action - RL transmitted formal comments on the ERA proposal and has requested a new revised draft for review. A comment resolution meeting was held on June 18, 1993.

618-11 Burial Ground Expedited Response Action - Work on the rough draft for the 618-11 ERA Proposal continues with a draft tentatively scheduled for late July.

White Bluffs Pickling Acid Crib Expedited Response Action - The draft ERA proposal was issued for review. DOE provided nine pages of comments on the document. The document is being revised for public review scheduled for early July.

Riverland Expedited Response Action - The public comment period for the proposal closed on June 9, 1993. Field activities are tentatively scheduled to be initiated on June 28, 1993, pending receipt of the Action Memorandum.

Sodium Dichromate Expedited Response Action - The final assessment report is being drafted. Solid Waste Engineering should dispose of the waste within the 90 day period allowed.

200 West Area Carbon Tetrachloride Expedited Response Action -

CCl_4 ERA

A. Vapor Extraction System (VES) Operations

Status of Operations: All three vapor extraction systems at the 200 West Area carbon tetrachloride ERA have been shut down as a result of the overheating of the primary granular activated carbon (GAC) canister at the 1500 cfm unit that occurred on June 3, 1993. The systems have been locked and tagged to prevent extraction operations until the approval to proceed is received through the restart process. During the restart process the VES systems will be temporarily operated on ambient air to perform limited testing of the units and facilitate waste handling of the impacted GAC canister. During this time there will be no extraction of carbon tetrachloride from the wellfield.

Restart Actions Completed: The complete restart strategy, with status as of June 18, 1993, is attached. Major actions completed since June 3, 1993, include:

- 24-hour initial Off Normal Occurrence Report submitted 6/4/93
- occurrence entered into Quality, Environmental, Safety Tracking (QUEST) database 6/15/93

- 10-day Off Normal Occurrence Report submitted	6/17/93
- Initial Background Summary Report completed includes Occurrence Report, Hanford Fire Dept. Report, General Specifications and Properties of GAC, Notes of Discussions with GAC vendors, Notes of discussions with Savannah River personnel	6/11/93
- Priority Planning Grid (PPG) risk value determined	6/12/93
- Unreviewed Safety Question evaluation completed	6/16/93
- Heat Balance Scenario, Rev. 0, completed	6/18/93
- Occurrence Cause Analysis Report, Rev. 0, completed	6/18/93

Overheated GAC: Water that was added June 3, 1993, to cool the overheated GAC was sampled on June 7, 1993. Field analysis indicated a pH of <1. On site lab analysis confirmed there are no detectable radionuclides in the water. The GAC was filled with water and drained again on June 8, 1993, to dilute the water remaining in the GAC. The pH of that water was 1.3. Representative samples of the GAC and the overheated GAC are being collected to determine whether this GAC can be regenerated under the existing contract with Envirotrol. The water that was drained from the GAC has been drummed.

GAC Strategy: On June 7, 1993, the ERA project team decided to ship all the GACs that are currently filled in the "one-time" shipment to Envirotrol.

B. Well Field Design

Baseline Monitoring

Drilling of vapor extraction well 299-W15-219, northwest of 216-Z-9, began April 26, 1993, and reached total depth May 25, 1993. This well is currently being completed with two screened intervals. In addition, three stainless steel tubes were installed on the outside of the casing to allow subsurface pressures to be monitored at the surface using differential pressure transducers.

Drilling of vapor extraction well 299-W15-220 east of 216-Z-9 began June 2, 1993. By June 17, 1993, noon, the casing had been advanced to 108 ft. depth; the caliche had been encountered at 109 ft. depth; and the well had been drilled to 110 ft. depth. The early Palouse soil swelled, closing the open hole, and a few inches of standing water were observed in the well. A sample of this perched water was collected on June 17, 1993. On the morning of June 18, 1993, the perched water level was at 106.1 ft. below ground surface.

Drilling of vapor extraction well 299-W18-252, midway between 216-Z-1A and 216-Z-12, began May 3, 1993. As of June 11, 1993, total depth (228 ft.) had been reached and groundwater sampling had been completed. This well will be completed after well 299-W15-219 is completed.

EXPEDITED RESPONSE ACTION INTERFACE MEETING

-DECISIONS, AGREEMENTS, & COMMITMENTS-
June 21, 1993

DECISIONS:

AGREEMENTS: No significant items

COMMITMENTS:

RL Representative

EPA Representative

Ecology Representative

WHC Representative

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WEEKLY ERA INTERFACE AGENDA

SUBJECT: STATUS OF THE EXPEDITED RESPONSE ACTIONS

DATE: June 21, 1993

- GENERAL ISSUES
  - ERA Interface Action Item review
- INDIVIDUAL PROJECT STATUS
  - Riverland
    o Status of Action Memorandum (EPA)
  - Sodium Dichromate
    o Waste Disposal - No Action Yet
  - Pickling Acid Crib
    o Revising ERA Proposal
  - N-Springs
    o Draft Proposal Comments
  - North Slope
    o Developing Proposal
  - 200-W Carbon Tetrachloride
    o Operations
  - 618-11
    o Draft EE/CA
- OTHER ISSUES
- SUMMARY OF ACTION ITEMS
- SIGN-OFF ON ANY DECISIONS, AGREEMENTS, OR COMMITMENTS

EXPEDITED RESPONSE ACTION INTERFACE MEETING

-ACTION ITEMS-
June 21, 1993

ORGANIZATION	ACTION ITEM
WHC/RL	Provide an estimated date for transmittal of the N-Spring EE/CA to the regulators by June 21, 1993. *(closed)*

The sonic drilling rig is expected to be at the carbon tetrachloride site by mid August. It will be used to drill two vertical vapor extraction wells near the 216-Z-9 trench and one angled vapor extraction well under the parking lot north of the 216-Z-9 trench.

Cone penetrometer (CPT) well installation began May 3, 1993, in the vicinity of the three disposal sites by Applied Research Associates (ARA). The ARA field crew are gone June 3, 1993, to June 23, 1993. Additional extraction wells will be installed when they return at the end of the month.

A soil gas pressure monitoring station has been installed on the buried tubing well installed using the cone penetrometer north of 216-Z-9 (location CPT-9). Downhole pressure is continuously monitored at depths of 60, 70, and 91 ft.

Data collection continues at the wellhead monitoring systems installed on wells 299-W18-6, W18-7, W18-248, 299-W18-249, W15-218 (combined contribution from both screened intervals), and W18-246 (one system on each of two screened intervals). The wells are instrumented to measure temperatures, windspeed, pressure, humidity, and air flow, and to record these measurements on a data logger. In addition, a chemical sensor (B&K 1301) is used to collect carbon tetrachloride concentration data at well 299-W15-218 full time while the vapor extraction systems are shut down.

Initial testing of the modified HEPA vacuum began on June 4, 1993. Preliminary results were encouraging enough to warrant full assembly of the system: at about 7 inches of water vacuum, 100 cfm of flow was achieved. System testing utilizing ambient air to develop pump curves has begun. A test plan (WHC-SD-EN-TP-027) has been prepared for use with the system.

A purchase order has been awarded to Envirotrol for two 400 lb. GACs for use with the HEPA vac system. Delivery is scheduled for early July.

The contract with Dr. Joel Massmann of the University of Washington has been awarded. The objective of his work will be to use numerical models to simulate the behavior of the carbon tetrachloride passive vapor extraction wells. Evaluation of alternatives for designing and operating passive vapor extraction wells is part of the feasibility study to optimize wellfield design.

200 WEST AREA CCL4 VAPOR EXTRACTION ERA
RESTART STRATEGY
Rev. 6/18/93

STATUS OF OPERATIONS

All three vapor extraction systems have been locked and tagged to prevent operations until the approval to proceed is received through the restart process.

During the restart process the VES systems will be temporarily operated on ambient air to perform limited testing of the units and facilitate waste handling of the impacted GAC canister. During this time there will be no extraction of carbon tetrachloride from the wellfield.

ACTION	TARGET DATE	ASSIGNEE	STATUS
1. OFF NORMAL OCCURRENCE REPORTING		Hagood	
o 24-hour initial occurrence	6/4/93	Hagood	Complete
o QUEST database entry	6/15/93	Hagood	Complete
o 10-day report	6/17/93	Hagood	Complete
o Final occurrence reporting	7/15/93	Hagood	
2. INCIDENT ANALYSIS		Rohay/Cameron	
o gather background information			
- interview lead engineer			
initial	6/8/93	Johnson/Dippre	Complete
followup	6/23/93	Dippre	
- review procurement files	6/8/93	Dippre	Complete
- discussions with vendors/consultants	6/25/93	Dippre	Ongoing
- SRS event			
collect/analyze data	6/11/93	Dippre	Complete
followup with SRS	6/23/93	Dippre	
- review INEL safety analysis	TBD	Driggers/Lehrschall	
- hydrocarbon/ketone char. - wells	6/21/93	Swett/Bartley	
sampling	6/14/93	Swett	Complete
inorganic/methane analysis at PNL	6/16/93	Bartley	Complete
organic analysis at HEHF	6/18/93	Bartley	Complete
- hydrocarbon/ketone char. - GACs	6/25/93	Gale/Bartley	
(primary overheated GAC secondary GAC behind overheated GAC uninvolved saturated GAC)			
Sampling Analysis Form with HASM	6/18/93	Havenor	
Air dry GAC/Job Hazard Analysis	6/21/93	Gale	
Sampling	TBD	Gale	
inorganic/methane analysis at PNL	TBD	Bartley	
organic analysis at HEHF	TBD	Bartley	

- obtain fireman's report	6/8/93	Gale	Complete
- provide background summary report			
Rev. 0	6/14/93	Dippre	Complete
Rev. 1	6/25/93	Dippre	
o occurrence cause analysis			
- heat balance scenarios			
Rev. 0	6/18/93	Jeff Dengler	
Rev. 1	6/25/93	Dengler	
Rev. 2	TBD	Dengler	
- consequence/accident scenario	6/25/93	Lehrschall	
[note: needs heat balance scenario]			
- shutdown analysis	TBD	Gale/Tuttle	
- phosgene analysis	6/23/93	Dave Prinzing	
[note: needs heat balance scenario]			
- GAC physical and chemical props.	6/23/93	Havenor/Envirotrol	
primary GAC center and margin samples			
Sampling Analysis Form with HASM	6/18/93	Havenor	
Air dry GAC/Job Hazard Analysis	6/21/93	Gale	
Sampling	TBD	Gale	
- GAC water analysis		Havenor	
Sampling Analysis Form with HASM	6/18/93	Havenor	
Sampling	TBD		
Analysis	TBD		
- GAC drummed water waste disposal		Havenor	
- coupon testing for GAC canister corros.	TBD	Cameron	
- provide occurrence cause analysis summary report			
[note: includes background summary report]			
Rev. 0	6/18/93	Dippre	
Rev. 1	TBD	Dippre	
o Priority Planning Grid (PPG) and "Root Cause" analysis		Driggers	
- determine PPG risk value	6/12/93	Galgoul	Complete
- "Root Cause" Analysis	TBD	Dieffenbacher	
[note: incorporates occurrence cause analysis report]			
o Unreviewed Safety Question (USQ) process		Driggers	
- USQ initial screening	6/11/93	Lehrschall	
- USQ evaluation	6/16/93	Lehrschall	

3. INTERIM CORRECTIVE ACTION EVALUATION AND VES OPERATIONS Rohay/Cameron

o Determine interim corrective actions	6/21/93	Driggers	
[note: based on occurrence cause analysis report]			
o Evaluate potential system design/ engineering controls	6/24/93*	Driggers	
- provide airflow through GAC canisters at shutdown to remove heat			
- prewet GAC before adsorption operations			
- install thermocouple trees with shutdown interlocks			
deliver clean GAC to 306 building	6/16/93	Gale	Complete
develop and fabricate testing			
- install carbon monoxide monitors downstream of GACs to detect combustion			

- limit total carbon tetrachloride mass flux to reduce heat buildup
- provide extra moisture-laden ambient air through GACs during operations to remove more heat
- utilize parallel treatment trains to split total carbon tetrachloride loading in canisters to mitigate heat buildup

o impact on existing GAC contract			
o Procurement/delivery of equipment	6/25/93*	Gale	
o Equipment installation	6/26/93*	Gale	
o Provide Justification for Continued Operations (JCO)			
- determine basis for JCO	6/21/93	Driggers	
- draft JCO	6/22/93	Driggers	
- JCO approval	6/23/93	Driggers	
o Rev. to controlling documents			
- TI-010	6/24/93*	Driggers	
- Pre-fire plan	6/17/93	Tuttle	Complete
- HWOP	6/24/93*	Tuttle	
o Safety Meeting	6/28/93*	Tuttle	
o Systems Startup			
1000 cfm at Z-1A	6/23/93*	Gale	
500 cfm at Z-9	6/28/93*	Gale	
1500 cfm at Z-9	6/28/93*	Gale	

4. LONG TERM CORRECTIVE ACTION EVALUATION AND VES OPERATIONS Rohay/Cameron

o Determine long term corrective actions [note: based on "root cause" and analyses]	6/30/93	Dieffenbacher, Lehrschall, ERA team
o Evaluate potential system design/ engineering controls	7/5/93	Driggers
- install off-the-shelf condenser prior to GAC polisher to reduce mass of carbon tetrachloride loading GACs		
recycle condensed carbon tet		Driggers/Cameron
convert condensate to TCA and recycle		Driggers/Cameron
load condensate into GAC/ship offsite		Rohay
- internal GAC water shower		
o Determine regulatory constraints on system	7/5/93	Cameron
o impact on existing GAC contract		
o Procurement/delivery of equipment	TBD	Gale
o Equipment Installation	TBD	Gale
o Revision of controlling documents	7/5/93	
- TI-10		Driggers
- Safety Analysis		Lehrschall
- HWOP		Tuttle
o Safety Meeting	TBD	Tuttle
o Systems Startup	TBD	Gale

* Schedule assumes acceptance by management and other parties to proceed with certain engineering changes and procurement of VES equipment in parallel with the "incident analysis". Schedule may be impacted due to Safety Analysis results or management direction.

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